

Application Serial No. 09/658,823
Amendment Dated: April 7, 2010
Reply to Office Action dated: December 7, 2010

REMARKS

There were 30 claims pending in the application.

Applicant has cancelled claims 1 through 30, representing all the previously presented and original claims made in the submission of the prior Office Action.

Applicant has added new claims 31-58, of which claims 31, 39, 45, and 52 are independent claims. Claims 45-51 are claims directed to storage media containing a programme for execution and are the method claims 31-38 re-written to such executable code stored within storage media. Similarly claims 52-58 are claims directed to storage media containing a programme for execution and are method claims 39-44 re-written to such executable code stored within storage media.

Information Disclosure Statement

This patent application, 09/658,823 entitled "Method and Apparatus for Enhancing Reliability of Automated Data Processing" represents one of a family of 13 patent applications all filed by Applicant on the same day, being September 8, 2000. In order to ensure full disclosure Applicant has submitted an Information Disclosure Statement (PTO/SB/08a) wherein he has cross-referenced this family of patent application to the best of his knowledge at this point in time.

This family of patents includes the following 9 allowed or issued patents:

Patent	Title	Publication Date	Filing Date
09/658,298	Method and apparatus for communicating during automated data processing	Allowed 2010-02-16	2000-09-08
US7000223	Method and apparatus for preparing a definition to control automated data processing	2006-02-14	2000-09-08

US6961922	Method and apparatus for defining operations to be performed during automated data processing	2005-11-01	2000-09-08
US6944865	Method and apparatus for saving a definition for automated data processing	2005-09-13	2000-09-08
US6925593	Method and apparatus for transferring data during automated data processing	2005-08-02	2000-09-08
US6868193	Method and apparatus for varying automated data processing	2005-03-15	2000-09-08
US6850956	Method and apparatus for obtaining and storing data during automated data processing	2005-02-01	2000-09-08
US6757888	Method and apparatus for manipulating data during automated data processing	2004-06-29	2000-09-08
US6651121	Method and apparatus for facilitating scalability during automated data processing	2003-11-18	2000-09-08

Claim Rejections 35 U.S.C. § 102

Claims 1, 4, 5, 8-11, 14-16, 19-20, 23-26 and 29-30 were rejected under 35 U.S.C. § 102(e) as being anticipated by Jantz et al in US Patent 6,487,677 (hereinafter referred to as “Jantz”)

As noted supra Applicant has cancelled all of claims 1, 4, 5, 8-11, 14-16, 19-20, 23-26 and 29-30 which were rejected under 35 U.S.C § 102 in light of the prior art of Jantz. Of these claims 1, 14, and 29 were independent claims.

Applicant has submitted new claims 31-58 of which claims 31, 39, 45, and 52 are independent claims. Independent claims 31 and 39 relate to methods and hence are closest to the previously presented claim 1. Independent claims 45 and 52 relate to executable computer code and hence are closed to the previously presented claims 14 and 29. Applicant being mindful of MPEP 2111 which requires that the Examiner give a claim its “broadest reasonable interpretation” has tried in

providing these new claims to address the issues identified by the Examiner in the Final Office Action with respect to claim language.

According Applicant has provided below the new independent claim 31 which has replaced the previously presented first independent claim (claim 1) in standard amended format to identify to the Examiner where the new independent claim addresses the issues raised in the rejection for anticipation in respect of the prior art of Jantz.

According in respect of claim 31 there is stated:

“A method comprising the steps of:

executing in a computer system a first procedure which effects execution of a series of project definitions, wherein each said project definition obtains data from a data source, processes the data in a specified manner, and then places the data in a data destination; selectively launches execution in said computer system of a predetermined project definition of a set of predetermined project definitions in response to respective requests for execution thereof, each said predetermined project definition for manipulating data and comprising:

a plurality of function portions which each correspond to one of a plurality of predetermined function definitions that are different, each predetermined function definition defining a process to be applied to the data and at least one input port and at least one output port that are functionally related according to the corresponding function definition;

a further portion which includes a source portion identifying a data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying a data destination and defining an input port through which data can be supplied to the data destination; and

binding information which includes binding portions that each associate a respective said input port with one of said output ports; and

executing in said computer system a second procedure in association with at least one of the first procedure and the predetermined project definition, the second procedure for monitoring a

~~predetermined performance characteristic of a set of predetermined performance characteristics and determining an action relating to the at least one of the first procedure and the predetermined project definition in dependence upon at least the predetermined performance characteristic which monitors said execution of said first procedure for a performance characteristic of said first procedure outside of predefined acceptable bounds during execution, and which takes remedial action in response to detection of said performance characteristic outside of predefined acceptable bounds during execution.~~

Jantz teaches a managed device (i.e. a computer system) which upon detection of an error condition within the managed device has the management service propagates an event to the management client indicating the error condition. Jantz further teaches that the management client in the management device responds to the event by requesting the managed device to determine the best options for recovery procedures. The managed device then computes a probability of success for each known recovery procedure based upon the present state of the managed device and based upon past successes or failures of recovery procedures for particular error conditions. A list of each recovery procedure and its associated probability is returned to the management device.

Jantz then teaches to a user or further management client process selecting a desired procedure to attempt to correct the error condition in cooperation with the managed device. The process then repeats, recomputing the probability values for each recovery procedures, as needed until the problem is successfully resolved by a selected recovery procedure. As such Jantz teaches to a recovery mechanism within a managed device which requires the managed device to generate corrective options and compute their probability of success and pass these to the management client for determination of the action to be taken.

The Examiner has noted in the rejection of claim 1 that Microsoft Windows is "utilized to run any one of the series of programs that are stored on the computer." Applicant recites "a first procedure which selectively launches execution in said computer system of a predetermined project definition of a set of predetermined project definitions in response to respective requests

for execution thereof, each said predetermined project definition for manipulating data and comprising:

a plurality of function portions which each correspond to one of a plurality of predetermined function definitions that are different, each predetermined function definition defining a process to be applied to the data and at least one input port and at least one output port that are functionally related according to the corresponding function definition;

a further portion which includes a source portion identifying a data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying a data destination and defining an input port through which data can be supplied to the data destination; and

binding information which includes binding portions that each associate a respective said input port with one of said output ports.”

Applicant also believes that the structure presented in respect of the “project definitions” overcomes the Examiner’s observation that the term lacks an explicit definition and accordingly that the current claim language is supported by the instant specification and has a narrow interpretation within the scope of the disclosed invention.

Applicant notes that that whilst Microsoft Windows and other operating systems may execute or run any of a series of programs that are stored on the computer that each programme does not comprise the recited limitations of each project definition comprising “a plurality of function portions which each correspond to one of a plurality of predetermined function definitions that are different, each predetermined function definition defining a process to be applied to the data and at least one input port and at least one output port that are functionally related according to the corresponding function definition.” Further such programmes do not further contain within each “a further portion which includes a source portion identifying a data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying a data destination and defining an input port through which data can be supplied to the data destination” nor “binding information which

includes binding portions that each associate a respective said input port with one of said output ports.”

In respect of the teachings of Jantz Applicant notes that the managed device performs the processes of execution and monitoring and that the managed client simply receives from the managed device the indication that an error has occurred. The managed device similarly performs the probability determination of different solutions which are communicated to the managed client for determining the corrective action. Accordingly Applicant respectfully suggests that Jantz teaches to a first process (executing within the managed device whatever the user has requested be executed), a second process (being the management server within the managed device the monitoring for an error and the determination of the potential solutions and their probabilities of success) and a third process (being the managed client for determining the correction either directly or through input from the user). As noted Jantz teaches to the management server and management client being engaged when an error condition is detected.

Applicant recites in respect of claim 31 “executing in said computer system a second procedure in association with at least one of the first procedure and the predetermined project definition, the second procedure for monitoring a predetermined performance characteristic of a set of predetermined performance characteristics and determining an action relating to the at least one of the first procedure and the predetermined project definition in dependence upon at least the predetermined performance characteristic.” Accordingly the second procedure determines an action “in dependence upon at least the predetermined performance characteristic” rather than solely when an error condition occurs.

Accordingly the Applicant respectfully submits that the new independent claim 31 is not anticipated by the prior art of Jantz and hence is allowable subject matter.

Regarding new independent claim 38 which is a new independent method claim Applicant has similarly provided the previously presented first independent claim (claim 1) in standard amended format to identify to the Examiner where the new independent claim addresses the issues raised in the rejection for anticipation in respect of the prior art of Jantz.

According in respect of claim 38 there is stated:

“A method comprising the steps of:

~~executing in a computer system a first procedure which effects execution of a series of project definitions, wherein each said project definition obtains data from a data source, processes the data in a specified manner, and then places the data in a data destination; selectively launches execution in said computer system of at least one predetermined project definition of a set of predetermined project definitions in response to respective requests for execution thereof, each said predetermined project definition relating to manipulating data and defining at least a data source containing data, at least one process to be applied to the data, and a destination for the processed data; and~~

~~executing in said computer system a second procedure in association with at least one of the first procedure and the predetermined project definition, the second procedure for monitoring a predetermined performance characteristic of a set of predetermined performance characteristics and changing an aspect of the execution of the at least one of the first procedure and the predetermined project definition to which the predetermined performance characteristic relates, the change being determined in dependence upon at least the predetermined performance characteristic which monitors said execution of said first procedure for a performance characteristic of said first procedure outside of predefined acceptable bounds during execution, and which takes remedial action in response to detection of said performance characteristic outside of predefined acceptable bounds during execution.”~~

As noted *supra* in respect of independent claim 38 Applicant notes that Jantz does not teach to a “a first procedure which selectively launches execution in said computer system of at least one predetermined project definition of a set of predetermined project definitions in

response to respective requests for execution thereof, each said predetermined project definition relating to manipulating data and defining at least a data source containing data, at least one process to be applied to the data, and a destination for the processed data.”

Further Applicant noted supra that Jantz does not teach to “a second procedure in association with at least one of the first procedure and the predetermined project definition, the second procedure for monitoring a predetermined performance characteristic of a set of predetermined performance characteristics and changing an aspect of the execution of the at least one of the first procedure and the predetermined project definition to which the predetermined performance characteristic relates, the change being determined in dependence upon at least the predetermined performance characteristic.”

Accordingly the Applicant respectfully submits that the new independent claim 38 is not anticipated by the prior art of Jantz and hence is allowable subject matter.

In respect of dependent claims 32 through 37 Applicant notes that these are all dependent directly or via an intermediate dependent claim upon independent claim 31. Accordingly Applicant respectfully submits that dependent claims 32 through 37 are allowable as they are dependent upon independent claim 31 and hence dependent upon allowable subject matter.

In respect of dependent claims 39 through 44 Applicant notes that these are all dependent directly or via an intermediate dependent claim upon independent claim 38. Accordingly Applicant respectfully submits that dependent claims 39 through 44 are allowable as they are dependent upon independent claim 38 and hence dependent upon allowable subject matter.

Regarding new independent claim 45 this relates to “one or more computer-readable media storing a computer program which is operable when executed to facilitate...” The recited limitations of independent claim 45 are the same as those discussed *supra* in respect of independent claim 31.

Accordingly the Applicant respectfully submits that the new independent claim 45 is not anticipated by the prior art of Jantz and hence is allowable subject matter.

In respect of new dependent claims 46 through 51 these are all dependent directly or via an intermediate dependent claim upon independent claim 45. These all recites “the computer-readable media storing a computer program which is operable when executed to facilitate...” but in all other respects the recited limitations of dependent claims 46 through 51 are the same as those discussed *supra* in respect of dependent claims 32-37 respectively.

Accordingly Applicant respectfully submits that dependent claims 46 through 51 are allowable as they are dependent upon independent claim 45 and hence dependent upon allowable subject matter.

Regarding new independent claim 52 this relates to “one or more computer-readable media storing a computer program which is operable when executed to facilitate...” The recited limitations of independent claim 52 are the same as those discussed *supra* in respect of independent claim 39.

Accordingly the Applicant respectfully submits that the new independent claim 52 is not anticipated by the prior art of Jantz and hence is allowable subject matter.

In respect of new dependent claims 53 through 58 these are all dependent directly or via an intermediate dependent claim upon independent claim 52. These all recites “the computer-readable media storing a computer program which is operable when executed to facilitate...” but

in all other respects the recited limitations of dependent claims 53 through 58 are the same as those discussed *supra* in respect of dependent claims 39-44 respectively.

Accordingly Applicant respectfully submits that dependent claims 53 through 58 are allowable as they are dependent upon independent claim 52 and hence dependent upon allowable subject matter.

Claim Rejections 35 U.S.C § 103

Claims 2-3 and 17-18 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Jantz.

Applicant notes that the Examiner in rejecting claims 2-3 and 17-18 has cited Office Notice MPEP 2144.03 which states that an Examiner may rely on "common knowledge" in making a rejection. As such Applicant agrees with Examiner that computers with two processors may be considered as well known in the art. However, as noted *supra* previously presented claims 2-3 and 17-18 have been cancelled in this response to the Final Office Action issued December 7, 2009.

In the new claims submitted with this response to the Final Office Action there are 4 new dependent claims that recite "wherein the computer system comprises at least first and second processors, the first procedure being executed by the first processor and the second procedure being executed by the second processor." These are claims 32, 39, 46 and 53 which are all dependent upon their respective independent claims, being claims 31, 38, 45, and 52 respectively.

As noted *supra* Jantz teaches to a management server within a managed device detecting an error condition in an application in execution and passing information to a managed client. As such Jantz teaches to three processes in execution within the computer system. The first process (application in execution which creates error) and second process (managed server which detects error and determines probabilities of recovery processes) are executing within the same managed

device which would mean the same processor of the system as managed client is executing separately. The third process (management server) determines recovery based upon its processing or user input).

In contrast Applicant recites “the first procedure being executed by the first processor and the second procedure being executed by the second processor.” Further Applicant recites in the dependent claims that the “the second procedure for monitoring a predetermined performance characteristic of a set of predetermined performance characteristics and determining an action.” Jantz teaches that two processes are required to perform this limitation and that the action is only determined in dependence upon an error.

Accordingly Applicant respectfully submits that Jantz does not teach to the recited limitation within dependent claims 32, 39, 46 and 53. Further dependent claims 32, 39, 46 and 53 are all dependent upon their respective independent claims, being claims 31, 38, 45, and 52 respectively, and are therefore allowable as being dependent upon the allowable subject matter of their respective independent claims, being claims 31, 38, 45, and 52 respectively.

Claim Rejections 35 U.S.C § 103

Claims 6-7, 12-13, 21-22, and 27-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jantz in light of McLaren et al in US Patent 6,393,584 (hereinafter referred to as “McLaren”).

McLaren teaches to a computing system comprising volatile memory and non-volatile memory (i.e. a mass storage device). In response to a selected input the scheduled tasks are halted, the operating state stored to the non-volatile memory and power is removed from the processing system. Upon re-application of power the scheduled tasks are retrieved from non-volatile memory to volatile memory and the process resumes. Accordingly McLaren does not teach to halting a process based upon an error condition, rather simply powering down the processor such as when shutting the top of a laptop processor or turning a computer off. Further

the teachings of McLaren require the scheduled task sequence to be transferred from one memory storage medium to another.

Accordingly Applicant respectfully submits that is not obvious to combine the teachings of McLaren in respect of shutting down and restarting a process through power interruption with the teachings of Jantz in respect of determining an action based upon probabilities of a particular recovery processes succeeding.

However, as noted supra in respect to other rejections the claims at issue, being claims 6-7, 12-13, 21-22, and 27-28 have been cancelled in this response to the Final Office Action.

Applicant notes that new dependent claims 33, 35 and 36 relate to comparable subject matter as the cancelled claims and hence comparable in respect to Examiner's observations in combining Jantz and McLaren in some instances and Jantz, McLaren and common knowledge in other instances.

In respect of these new dependent claims 33, 35 and 36 the Applicant respectfully submits that the combination of Jantz and McLaren does not teach the recited limitations of these claims even if there was provided a motivation to combine. Further dependent claims 33, 35 and 36 are dependent upon independent claim 31 and hence are dependent upon allowable subject matter.

Further Applicant notes that new dependent claims 40, 42 and 43 relate to comparable subject matter as the cancelled claims and hence comparable in respect to Examiner's observations in combining Jantz and McLaren in some instances and Jantz, McLaren and common knowledge in other instances.

In respect of these new dependent claims 40, 42 and 43 the Applicant respectfully submits that the combination of Jantz and McLaren does not teach the recited limitations of these claims even if there was provided a motivation to combine. Further dependent claims 40, 42 and 43 are dependent upon independent claim 38 and hence are dependent upon allowable subject matter.

Further Applicant notes that new dependent claims 47, 49 and 50 relate to comparable subject matter as the cancelled claims and hence comparable in respect to Examiner's observations in combining Jantz and McLaren in some instances and Jantz, McLaren and common knowledge in other instances.

In respect of these new dependent claims 47, 49 and 50 the Applicant respectfully submits that the combination of Jantz and McLaren does not teach the recited limitations of these claims even if there was provided a motivation to combine. Further dependent claims 47, 49 and 50 are dependent upon independent claim 45 and hence are dependent upon allowable subject matter.

Further Applicant notes that new dependent claims 54, 56 and 57 relate to comparable subject matter as the cancelled claims and hence comparable in respect to Examiner's observations in combining Jantz and McLaren in some instances and Jantz, McLaren and common knowledge in other instances.

In respect of these new dependent claims 54, 56 and 57 the Applicant respectfully submits that the combination of Jantz and McLaren does not teach the recited limitations of these claims even if there was provided a motivation to combine. Further dependent claims 54, 56 and 57 are dependent upon independent claim 52 and hence are dependent upon allowable subject matter.

Application Serial No. 09/658,823
Amendment Dated: April 7, 2010
Reply to Office Action dated: December 7, 2010

Applicant submits that the Application is now in condition for allowance, and earnestly solicits action to that end.

Respectfully submitted,

By: /Trevor C. Klotz/

Trevor Klotz
Reg. No. 26136
Perley-Robertson Hill & McDougall LLP
1400-340 Albert Street
Ottawa ON K1R 0A5
CANADA